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"Report of the Botanic Garden, Adelaide," from Dr. Schomburgh.

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"Abhandlungen des Naturwissenschaftlichen Vereines zu Bremen, Bd. vii., Heft 3," 1882.

"Bulletin de la Société Imperiale des Naturalistes de Moscou," 1881, No. 2.

"Fragmenta Phytographiæ Australiæ," by Baron F. von. Mueller, K.C.M.G., Vol. xi.

"On the Round Orange Scale," by Fraser S. Crawford.

"Neue Untersuchungen ueber die Bahn des Olbers'schen Cometen und sein Wiederkehr," von. F. K. Ginzel.

PAPERS READ.

HALF CENTURY OF PLANTS NEW TO SOUTH QUEENSLAND.

BY THE REV. B. SCORTECHINI, L.L.B., F.L.S.

A more thorough and more extensive research into the plants which constitute the Flora of the territory, the limits of which were described in my last paper, now enables me to place on record the existence of other species as coming within these boundaries. Some of these species, enjoying as they do a wide distribution, might have been expected to occur in the districts where I have been collecting. Still many have been discovered which have hitherto been considered tropical, or belonging to cooler regions, and these present some anomalies in the geographical distribution of plants, and offer data for generalization on this important point. Not only species, the congeners of which were

recorded previously among ours, but representatives of genera with no member of their family known to exist here, and even of an order, may be claimed to enrich our already wealthy Flora.

I have abstained from enlisting in the roll of our plants some new species brought within the last twelve months to the light of science by our veteran Botanist Baron Mueller, and which have been discovered in this locality. Likewise many varieties into which more or less elastic species are apt to sport have no place in this supplementary revision. Although the study of the variations to which many plants of a wide geographical range are subject, in connection with that of the causes which influence these changes within specific limits, such as the nature of soil, from which they draw nutriment, the heat and moisture of the atmosphere in which they grow, the light, insects, neighbouring plants and many more agencies, is of the highest interest for the solution of a more general problem, still the material for it is as yet so scanty as to scarcely deserve mention.

In the prefatory remarks to my former paper Australian Cryptogamology was numbered among those subjects of botanic science for which little or nothing had been done. This statement might engender the wrong impression that no attention whatsoever was paid to Cryptogamic Botany. The supplements that Baron Mueller has added to the eleventh volume of his *Fragmenta* show what an immense stride has been made in the knowledge of Australian Cryptogamic plants. Without reckoning the Ferns, Lycopodiads, the few Marsileaceæ, the number of known cryptogamic forms rises to over three thousand, one-third of which belong to the Fungal class, another to the Algal, and the last to Characeæ, Musci, Jungermanniæ and Lichens. It is mainly due to the labour of the learned Baron to have brought together, and offered for identification and description to eminent European specialists so many species. The words of my assertion may be taken to mean that although much has been done for the Cryptogamic Botany of Australia, still compared with

what remains undone in this department we may truly say that little or nothing has been done towards it. It has been asserted by high authorities that the fungal flora alone equals in richness and variety of its forms that of the planerogamous flora. The Australian mycologic flora is as yet scarcely one-eighth of the phanerogamic, and in its turn one-third of the whole known cryptogamic flora, so that we may well assert that only a small fraction of cryptogamic Botany is known to us.

RANUNCULACEÆ.

Ranunculus lappaceus, Sin., in Rees' Cycl.

This species, although most common and very attractive in rich pasturage on account of its beautiful golden cups, has no previous record of its occurrence among the members of the South Queensland Flora.

MAGNOLIACEÆ.

Drymis dipetala, F. v. Muell., Pl. Vict. I. 21.

From the Southern slopes of Mount Lindsay, (New South Wales territory) this pepper scrub may be traced westwards in the dense scrubs up to Wilson's Peak and through the Dividing ranges, eastwards to Point Danger in the scrubs about Tallebudgera, and northwards at the top of Tambourine mountains.

CRUCIFERÆ.

Cardamine hirsuta, Linn.

Very rarely met with.

CAPPARIDÆÆ.

Capparis Mitchellii, Lindl.

A few individuals of this species so much resembling *C. nobilis*, may be noticed along the edges of scrubs at the head of the Logan, and as one moves westwards towards Warwick they gradually become more plentiful.

PITTOSPOREÆ.

[*Comesperma sphaerocarpum*, Steetz., in Pl. Preiss.

About swamps at Stradbroke Island, and many other places in the mainland towards Nerong Creek.

CARYOPHILLEÆ.

Stellaria glauca, With.

In moist places commonly met with, as well as along the Logan and Albert Rivers.

HYPERICINÆ.

Hypericum japonicum, Thunb., Fl. Jap.

I could discover only one specimen of this plant at Tambourine Mountain. Its vicinity to a garden where imported seeds were sown suggests that it might have been introduced into Queensland; still as the mountain is rich with specimens of New South Wales vegetation and as *H. japonicum* is recorded as indigenous in New England, and on the Clarence, localities much akin to this mountain, it may with safety be assumed that it appears here not by introduced seeds, but by natural processes of distribution. Although scanty it is indigenous to the Mountain.

MALVACEÆ.

Malvastrum tricuspidatum, A. Gray.

Very seldom to be seen; about the edges of scrubs.

STERCULIACEÆ.

Sterculia Bidwillii, Hock., Herb.

Tambourine Mountain.

Sterculia lurida, F.v.M.

Cochin Cochin.

Sterculia acerifolia, A. Cunn.

Nothing can surpass the grandeur of a mountain when in the month of November, clothed by this blooming *Sterculia*, its sides seem all a-flame. The campanulate calix of a brilliant coral-red, hanging in profuse panicles, imparts a red tinge to the whole scenery. Some slopes of forest mountains at the head of the Logan where flame-trees predominate above all other vegetation present this magic spectacle. It is easy from a long distance to see the red spots where, in the midst of dark foliage in the scrubs of Wilson's Peak and its neighbourhood, the flame-tree presents such a charming appearance.

Sterculia rupestris, Benth., Fl. Aust. I., 230.

To the scrubs, which for many miles extend along the ridges dividing Dugundan from Fassifern, these bottle-trees give a remarkable aspect. Their spindle-shaped trunks attain a great height, quite in contradistinction to the short and thick bottle-shaped trunk of the same *Sterculia*, which grows on the flats of Northern Queensland.

Seringia platyphylla, J. Gray, Mus. Par.

By the main road which from Nerang Creek leads to Tallebudgera an isolated cluster of this *Seringia* may be seen growing.

TALIACEÆ.

Sloanea Wollsi, F.v.M., Frag. VI., 171.

Judging from the amount of echinate capsules strewn on the ground in the Tallebudgera jungles one is led to think this tree to be very prevalent in the midst of that rich vegetation. Owing to the want of flowers I should have been unable to identify the species but for the kind assistance of Baron von Mueller.

ZYGOPHYLLÆÆ.

Zygophyllum apiculatum, F.v.M., in Linn.

No more than a single plant was I able to detect on the edge of Dugundan scrub.

GERANIACEÆ.

Erodium cicutarium, L'Her.

Found in company with *Hypericum japonicum*, Thunb., on Tambourine mountain. This is another reason for supposing that the mountain is a natural habitat.

Pelargonium australe, Willd.

In crevices of rocks, bathed by streams; this *Pelargonium* grows abundantly near Wilson's Peak.

RUTACEÆ.

Acronychia melicopoides, F.v.M., Frag. V.

About the scrubs of Tambourine mountain, on the stony ridges of Tallebudgera, I have detected the *Acronychia*. It is remarkable for its tri-foliate leaves, and for its acidulous and aromatic fruits which are succulent and palatable in its wild state. By cultivation it might be made an excellent table fruit.

Halfordia drupifera, F.v.M., Frag. V., 43.

In the stunted jungles, which cover the sandy shores near the mouth of Nerang Creek, and the south end of Stradbroke Island it can be seen very abundantly intermixed with some *Eugenas*. The large cymes of white flowers which appear in the month of March, succeeded by dark red berries give it a beautiful appearance.

Evodia accedens, Blume, Bijdrag, 246.

On that part of Stradbroke Island, that is called Dunwich, near the edges of those extensive swamps so rich in varied vegetation, it grows rather scantily, in company of what appears to be a *Cryptocarya* perhaps as yet undescribed, but not recognis-

able by me, because I have not yet seen its flowers. This same Laurel which is of large size with deep, soft bark of a reddish colour, and aromatic flavour grows in greater abundance on the banks of Nerang Creek, and I traced it at the entrance of the Tweed River.

SIMARUBEÆ.

Cadellia monostylis, Benth., Fl. Aus. I., 375.

This *Cadellia* was observed by me in the scrub of Wilson's Peak, where it is most plentiful as the fugacious yellow petals scattered on the ground indicate. It was by Baron Mueller elevated to the rank of a monotypic genus under the name of *Guilfoylia* (Frag. VIII., 34); but now it has been placed in its former position of a *Cadellia*, in the recension of Australian genera by the illustrious Baron and among Quassiads. The genus *Guilfoylia* is now omitted.

OLACINEÆ.

Pennantia Cunninghamii, Miers. Ann. Nat. His.

A rare tree; both male and female plants to be seen in the Upper Coomora scrubs. The female flowers are two-thirds the size of the male ones, with barren anthers, and the leaves of the female tree are longer and broader than those of the male plant.

CELASTRINEÆ.

Leucocarpon (*Denhauria*) *pittosporoides*, F.v.M.

Seen at Tallebudgera and Mount Maroon at the source of the Logan. The generic appellation *Leucocarpon* is to be preferred to *Denhauria* as Baron Mueller remarks in Frag. VI., 203, and in fact he adopts it in his census of our genera, because of its priority. It was abandoned because bryologists had preoccupied it, however as bryologists now have dropped the genus *Leucocarpon* by right of priority it must be restored to its former appellation.

RHAMNEÆ.

Cryptandra amara Sm., Tran. Linn. Soc., X. 295

In one locality alone on the sandy ridges of the Logan near Timboomba, I came across this low shrub some years ago. After repeated researches on the same spot and thereabouts I never came across it again.

AMPELIDÆÆ.

Vitis hypoglauca, F.v.M., Pl. Vict., I., 94.

Very frequently to be seen scaling and overtopping trees on the scrubby creeks of Tallebudgera. It knits together in a dense mass of foliage the rich seaboard undergrowth. Although very common, still there is no record of its existence in this district.

Vitis sterculifolia, F.v.M., Herb.

This plant more massive and less common than the foregoing may be seen growing near Dunwich. As Baron Mueller remarks, the stalklets of this Dunwich *Vitis* are longer than usual.

SAPINDACEÆ.

Heterodendron diversifolium, F.v.M., Frag. I. 46.

There is no plant so common in the scrubs of Dugundan, Mount Maroon, and Wilson's Peak as this. It can easily be traced from this peak down the Condamine River, as it wends towards Warwick through a majestic chasm in a high abrupt rock.

Harpullia alata, F.v.M., Frag. II., 103.

Rather scarce in the Tallebudgera scrubs. The racemes of flowers present a greater length than that of the typical form.

LEGUMINOSÆÆ.

Mirbelia reticulata, Sm., Ann. Bot. I., 511.

In the swamps which for a considerable extent stretch north of Burleigh Heads, this slender plant is to be seen making its way through the low swampy vegetation.

Jacksonia Stackhousii, F.v.M., Proc. Linn. Soc., N.S.W.

There is little room for doubting that the scanty and imperfect specimens of a *Jacksonia* which I gathered at Burleigh Head swamps belong to this newly described species. Its low growth, the difference in the length of the calyx lobes as compared with those of *J. scoparia*, with which it might be confused, point to this species. Add to this that the locality from which the original specimen came is not far away from Burleigh Heads.

Viminaria denudata, Sm., Exot. Bot. 51, f. 27.

Among the swampy growth of Burleigh Heads. Also on cretaceous soil near the Logan Village. A common species in the Murray scrubs; South Australia.

Daviesia corymbata, Sm., Ann. Bot. I., 502.

In one locality alone have I met with this species. This was on the road from Nerang to Southport.

Daviesia arborea, F.v.M. and B. Scort. ined.

The student of cabinet specimens may find himself puzzled in discriminating this species from the foregoing. Yet when the two plants are studied in their natural habitats they offer no difficulty and one can conclude with certainty that they are specifically distinct. The subject of this note bears out fully its specific appellation. It attains the stature of a tree, so contrary to the habit of its congeners, most of which are puny shrubs. The height of *D. arborea* reaches as high as forty feet, having a thick trunk more than a foot in diameter of a hard, whitish wood. The aspect of the tree calls to mind some of the large *Acacias*. In my rambles I never met with this tree further north

than Tambourine mountain. As one reaches the top of the mountain one sees it growing there. Its distribution as far as it could be noticed, is comprehended by a narrow zone. From the top of the mountain as we descend the eastern slopes it becomes more abundant till the Coomora is reached. There seems to be a break here, and we lose sight of it till we get near Burleigh Heads where it makes its appearance again, and follows up Tallebudgera Creek, down to the Tweed River. My excursions did not extend further. The copiousness of its racemes of bright yellow flowers covering it as with a mass of gold, and the graceful appearance of the tree recommend it to the attention of gardeners. It has found a home in European gardens.

Pultenea ternata, F.v.M., Frag. I. 8.

It presents the general aspect of *Daviesia squarrosa*; and like it too it covers many stony barren ridges of South Queensland.

Templetonia Muellerii, Benth., Fl. Aus. II., 169.

No more than one specimen could be discovered on the ridges of the Upper Logan.

Crotalaria trifoliastrum, Willd.

In some places on the Logan very abundant, spreading on cultivated ground. It has never been met prostrate, but always presenting an erect shrubby appearance.

Psoralea tenax, Lind., in Mitch. Threc. Exp. II., 10.

Two varieties, one with conspicuous flowers and large leaflets, another with petals nearly hidden by the calices and linear leaflets, are to be seen prostrate on many black soil flats of the Upper Logan.

Indigofera enneaphylla, L.

On the granite ridges along the course of the Teviot this humble *Indigofera* attracts our attention by the little gems of its ruby flowers.

Tephrosia Bidwillii, Benth., Fl. Aus. II., 210.

The variety *rufescens* grows on the Logan.

Lespedeza cuneata, G. Don., Gen. Syst.

Frequently to be seen on the alluvial flats of the Logan River.

Glycine tomentosa, Benth., Fl. Aust. II., 245.

The sandy ridges of Peel Island abound with this twining plant, as also several sandy hills of the Logan, but less so than on the Island.

Vigna lanceolata, Benth., in Mitch. Trop. Aust.

Towards Coochin, struggling among the grass. It grows also near Roma.

Rhynchosia Cunninghamii, Benth., Fl. Aust. II., 350.

In Barr's scrub near Beenleigh, Three-mile scrub near Brisbane, more plentiful around Bundaberg on the Burnett.

Guilandina Boduncella, Linn.

The only plant I came across was growing in a small island near Stradbroke. The seeds drifted perhaps by currents seem to work their way down south. It was noticed growing near Sandgate, a few miles from the northern banks of Brisbane, near the sea-shore. The intricate thorny branches of this species emulate *Caesalpinia sepiaria* of Roxb., and in *Mezoneuron Scortechinii*, F.v.M., they have a strong ally in forming an impenetrable hedge.

Acacia hispidula, Willd., spec. pl. iv., 1054.

This heath-like *Acacia* may be seen growing on the debris of granite rocks not far from the Logan Village.

Acacia myrtifolia, Willd., spec. pl. iv. 1054.

On the dry ridges leading from Nerang to Southport, and surrounding Tallebudgera, this pretty *Acacia* often claims the

attention of the traveller. The small raceme of globose flowers with dark green leaves bordered at times with red cannot but present an attractive sight.

Acacia binervata, DC., Prod. II., 452.

A few trees of this wattle are scattered near the Tallebudgera scrubs, and on the eastern side of Tambourine mountain.

Acacia elongata, Sieb., DC., Prod. II., 451.

Among the broken rocks of Minto's Craig, near Coochin.

Acacia Baueri, Benth., in Hook., London Journ.

Close to the swamps near Burleigh Heads. It is redescribed by Baron von Mueller in Frag. xi., 33, from specimens obtained from the Richmond River, a locality not far off from Burleigh Heads.

CONTRIBUTION TO A KNOWLEDGE OF THE FISHES OF NEW
GUINEA.

BY WILLIAM MACLEAY, F.L.S., &c.

Mr. Andrew Goldie, the well known New Guinea Explorer and Naturalist, has from time to time for the last year or more, sent me collections of Fishes taken by him at Port Moresby, and Cuppa Cuppa. The first named locality is well known, the other is the name of an inlet of the coast a little way further north. The Fishes are with a few exceptions well preserved, the native name of each species is duly recorded, in many cases most valuable notes are made of the colours of the living specimen, and altogether Mr. Goldie has shown himself to be a most excellent and intelligent collector. The enumeration of the species given in this Paper, demonstrates pretty clearly the fact—that the Fishes of that part of the New Guinea Coast differ but little